General Services Administration
Caribbean Property Management Center

Child Care Center
PR0023ZZ

150 Chardon Ave., Hato Rey, Puerto Rico

Post-Earthquake Assessment

January 28, 2020

General Services Administration
Caribbean Property Management Center
150 Carlos Chardon Street, Room 359
Hato Rey, PR 00918

Attention: Eng. Karin Reed, Project Manager
Ms. Olga Rodriguez, Contracting Officer

Submitted By:

RMA ARCHITECTS, P.S.C.
P.O. BOX 10992 CAPARRA HEIGHTS STATION
SAN JUAN, PUERTO RICO 00922-0992
T. 787-749-1960, T. 787-749-1965

Post-Earthquake Facility Assessment
for GSA Facilities in Puerto Rico

Project Name: **Puerto Rico Post-Earthquake Federal Facility Assessment**

Project Number: TBD

Region: Northeast and Caribbean (02) - Design & Construction Division

Building Name: Multiple Buildings

Building Addresses: 300 Recinto Sur Street, San Juan;
150 Chardon Ave., Hato Rey; 651 Federal Drive,
Guaynabo

Building Numbers: PR0003ZZ, PR0017ZZ, PR0023ZZ, PR0024ZZ and PR00521FP

Name	Year Built	Stories	GSF	Construction
Toledo	1914 & 1940	4+ Basement 7+ Basement	128,715	(b)(5)
Degetau	1974	7+ Basement	441,750	
Ruiz Nazario	1974	2		
Child Care	2000 & 2004	1	±19,180 (footprint)	
Parking Garage	2009 *	4	170,532	
GSA Center	1941	1	85,639	

Executive Summary

Following the seismic events of January 7, 2020, the U.S. General Services Agency (GSA) requested Architectural and Engineering (A/E) services to provide Post Earthquake Assessment of GSA Federal Buildings in Puerto Rico. Multiple teams of qualified structural engineers were organized to expedite the work during January 13 through January 15, 2020. GSA- SME Subject Matter Expert, Eng. William Earl accompanied the teams in the performance of the series of assessments. Available documents were provided by GSA prior to the visit for review and are detailed in the report.

Project Scope

The AE is to provide qualified inspection teams to perform the Detailed Evaluation Method for the multiple buildings listed herein in accordance with the current edition of Applied Technology Council ATC-20: "Procedures for Post-earthquake Safety Evaluation of Buildings". https://www.atcouncil.orgiatc-20

Deliverable 1 shall consist of:

1. Completed standardized forms included in ATC-20 for each building;
2. An executive summary of the observations and safety assessment for each building.

Deliverable 2 shall consist of a letter report of the observations and safety assessment for each building including descriptions and photographs of any observed safety conditions and key plans indicating locations.

Methodology

Multiple teams of qualified structural engineers were organized to expedite the work during January 13 through January 15, 2020. Teams are detailed and date of site visits listed in the Schedule of work in the table below.

DATE	TIME	ID	Name	Year Built	Stories	GSF	Professional -1		Professional-2		Professional-3		RMA POC-CEL	GSA BLDG MANAGER	
Monday 1/13/2020	8-8:30		Kick off meeting												
	8:30	PR0003ZZ	Jose V. Toledo U.S. Post Office and U.S. Courthouse	1914 1940	4 – basement 7 – basement	129,715.00	Eng. William Earl GSA SME 817-825-6237	X	Eng. Arturo Beale-POC RMA Structural Team Leader	X			(b) (6)	JOSE RAMOS	787-407-9952
	8:30	PR0023ZZ	Child Care Center	2000 2004	Original Annex	±19,180.00 (footprint)			Eng. Luis Daza		Myrene Giuliani-POC	X		FRANCISCO MARTINEZ	787-403-9483
	1:00	PR0024ZZ	Parking Garage	2009	4	170,532.00			Eng. Luis Daza		Myrene Giuliani-POC	X		FRANCISCO MARTINEZ	787-403-9483
	5:00		Wrap up call												
Tuesday 1/14/2020	8:00	PR0017ZZ	Ruiz Nazario	1974	2	441,750.00	Eng. William Earl	X	Eng. Arturo Beale-POC	X	Eng. Manuel Vidal			FRANCISCO MARTINEZ	787-403-9483
		PR0017ZZ	Federico Degetau	1974	7 – basement		Eng. William Earl	X	Eng. Arturo Beale-POC	X	Eng. Manuel Vidal			FRANCISCO MARTINEZ	787-403-9483
	5:00		Wrap up call												
Wednesday 1/15/2020	10:00	PR0052IFP	GSA Center	1941	1	85,639.00	Eng. William Earl		Eng. Monica Santos	X	Cristina Algaze-POC	X		WILLIAM PAGAN	917-715-5217
	12:00		Wrap up call												
CALL IN NUMBER: (b) PASSCODE (b)															

GSA Documents

GSA provided available documentation of each building and all known conditions of the facilities. Building Managers provided the support to the team in providing logistics of access to the team additional printed drawings and their knowledge of the building conditions. Information received is as follows:

2000 Child Care Center Phase 1 Structural Drawings S-1 to S-7
By Fred Mullach Santos AIA /Beato & Associates

2004 Rain Forest Child Care Center Annex Phase 2 Structural Drawings S-1 to S-7
By Fred Mullach Santos AIA

Building Background Information

This building was built in the year 2000 as a childcare facility and expanded in 2004 the single story structure consists of (b)(5)

Findings

The seismic evaluation performed has been of an ocular nature with the sole purpose of detecting visible damages with the structure experienced as a result of the earthquake of January 7, 2020 and the corresponding aftershocks to the date inspected. It does not address compliance with the current building codes in effect for Puerto Rico (IBC 2018) nor damages caused by other lateral loads causing events, soil conditions or any other events.

No structural damage related to recent seismic events were found at the subject facility. For additional observations, see the attached documentation.

ATC-20 Detailed Evaluation Safety Assessment Form

Inspection

Inspector ID: LUIS G. DAZA (b) (6)

Affiliation: RMA Architects PSC

Inspection date and time: JANUARY-13-2020 ☒ AM ☐ PM

Final Posting from page 2

☒ Inspected
☐ Restricted Use
☐ Unsafe

Building Description (PR00237Z)

Building name: CHILD CARE CENTER

Address: 150 CHARDON AVE - HATO REY PR 00918 USA

Building contact/phone: (b) (6)

Number of stories above ground: 1 below ground: 0

Approx. "Footprint area" (square feet): 19,180 Ft²

Number of residential units: (b) (5)

Number of residential units not habitable: NA

Type of Construction

(b)(5)

☐ Dwelling ☐ Other residential ☐ Public assembly ☐ Emergency services
☐ Commercial ☐ Offices ☐ Industrial ☐ Other: CHILD CARE
☒ Government ☐ Historic ☒ School

Evaluation

Investigate the building for the conditions below and check the appropriate column. There is room on the second page for a sketch.

	Minor/None	Moderate	Severe	Comments
Overall hazards:				
Collapse or partial collapse	☒	☐	☐	
Building or story leaning	☒	☐	☐	
Other	☐	☐	☐	
Structural hazards:				
Foundations	☒	☐	☐	
Roofs, floors (vertical loads)	☒	☐	☐	
Columns, pilasters, corbels	☒	☐	☐	
Diaphragms, horizontal bracing	☒	☐	☐	
Walls, vertical bracing	☒	☐	☐	
Precast connections	☒	☐	☐	
Other	☐	☐	☐	
Nonstructural hazards:				
Parapets, ornamentation	☒	☐	☐	
Cladding, glazing	☒	☐	☐	
Ceilings, light fixtures	☐	☒	☐	Lamps should be braced and A/C Ducts may be properly supported
Interior walls, partitions	☒	☐	☐	
Elevators	☒	☐	☐	
Stairs, exits	☒	☐	☐	
Electric, gas	☒	☐	☐	
Other Furniture	☐	☒	☐	some cabinets require lateral restraining.
Geotechnical hazards:				
Slope failure, debris	☒	☐	☐	
Ground movement, fissures	☒	☐	☐	
Other	☐	☐	☐	

General Comments: This building requires maintenance to avoid water infiltration at lower portions of roof area. Exterior walls have plaster defects

Continue on page 2

No structural damage observed associated with recent seismic activity.

Building name: PROOZ3ZZ CHILD CARE CENTER Inspector ID: ENG. LUIS O. DAZA (b) (6)

Sketch (optional)
Provide a sketch of the building or damaged portions. Indicate damage points.

(b)(5)

R WATER
RATION AT
PORTIONS
ALLS
E RAIN
CONTROL

Estimated Building Damage
If requested by the jurisdiction, estimate building damage (repair cost ÷ replacement cost, excluding contents).

- ☐ None
- ☐ 0–1%
- ☐ 1–10%
- ☐ 10–30%
- ☐ 30–60%
- ☐ 60–100%
- ☐ 100%

NOTE! None (b) (5) damage observed as consequence of recent seismic activity

(2) REPAIR ROOF INFILTRATIONS AT LOWER EDGES OF SOME ROOMS.

Posting N/A

If there is an existing posting from a previous evaluation, check the appropriate box.

Previous posting: ☐ INSPECTED ☐ RESTRICTED USE ☐ UNSAFE Inspector ID: _____ Date: _____

If necessary, revise the posting based on the new evaluation and team judgment. *Severe* conditions endangering the overall building are grounds for an Unsafe posting. Local *Severe* and overall *Moderate* conditions may allow a Restricted Use posting. Indicate the current posting below and at the top of page one.

☐ **INSPECTED** (Green placard) ☐ **RESTRICTED USE** (Yellow placard) ☐ **UNSAFE** (Red placard)

Record any use and entry restrictions exactly as written on placard: _____

Further Actions Check the boxes below only if further actions are needed.

☐ Barricades needed in the following areas: N/A

☐ Engineering Evaluation recommended: ☐ Structural ☐ Geotechnical ☐ Other: _____

☐ Other recommendations: _____

Comments: _____

RMA Arch tects, PSC
PO Box 10992
San Juan, PR 00922

PR0023ZZ Child Care Center

Descr pt on	PR Post-Earthquake Structura Inspect on
Address :	150 Chardon Avenue Hato Rey 00918 PR
Generated on	- 1/17/20
Stages	- Structura Inspect on
Bu d ng trades	- She
Stakeho ders	
Draw ngs	- CHILD CARE CENTER FLOOR PLAN (Structura Inspect on)

STRUCTURAL REPORT

VISUAL INSPECTION OF THE

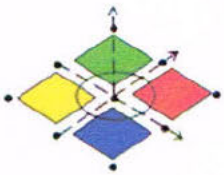
CHILD CARE BUILDING

150 CHARDON AVENUE, HATO REY, PR 00918

By:

Luis G. Daza Duarte, Ph.D, MECE, PE

(b) (6)



January 13 of 2020

1. INTRODUCTION

In view of recent events of a seismic nature since 28 December 2019, which have generated strong movements such as those recorded on the 7th and 11th of January 2020, with magnitudes of 6.4 and 5.9 on the Richter scale, respectively; it is necessary that the Federal Building structures be assessed after such kind of events.

This technical letter summarizes the structural inspection performed, following the ATC-20 (Applied Technology Council, Detailed Evaluation Safety Assessment form).

2. DESCRIPTION & FIELD DATA

On January 13, 2020, a field visit was made in the company of Arch. Myrene Giuliani from RMA Architects PSC and Federal Personnel in charge of building maintenance operations and (b) (6) Eng. Francisco Martínez GSA Building Manager.

Before to start the site visit, the structural drawings of the building were studied in order to detect the structural system and components of the building, age of construction, building code and mechanical properties of the construction materials.

The next step was the site visit, inspecting the exterior of the building and then the interior of the structure. Graphic evidence was taken with pictures with comments, creating a document that was already sent to the client.

In general terms the Child Care Building has 19,180 square feet and has a structural system composed (b)(5)

(b)(5)

3. FINDINGS

During the exterior and interior site visit; no structural damage was detected. No sign of distress was observed and related with recent seismic activity.

The observations made on ATC-20 form are related with old maintenance problems, such as water infiltration at lower roof areas, plaster cracking, poor drainage of rainwater near to exterior walls.

In terms of non-structural components, several observations were made. All of them are similar and can be summarized as follows:

(b) (6)

a) All cabinets shall be attached to structural walls to avoid sudden falls of furniture and avoid blockage of means of egress / ingress.

b) Lamps and Air Conditioning ducts should be braced to avoid oscillations during a seismic event.

c) Some wood cabinets require to install additional bolts (Tap-Con anchors) or equivalent attachments to structural walls.

d) Furniture mounted on tables must be anchored in both directions and each table must be strongly adhered to ground floor or R/C walls.

e) Any water tank shall be braced to avoid sudden falls during shaking.

f) Heavy storage items shall be located on lower portions of the cabinets. These cabinets would have doors to avoid spills of its contents (i.e. at kitchen area).

4. CONCLUSIONS AND RECOMMENDATIONS

Based on the visual inspections observed and following the ATC-20 form, this building is considered in serviceable condition and no damage is observed related with recent seismic activity until the date of our site visit.

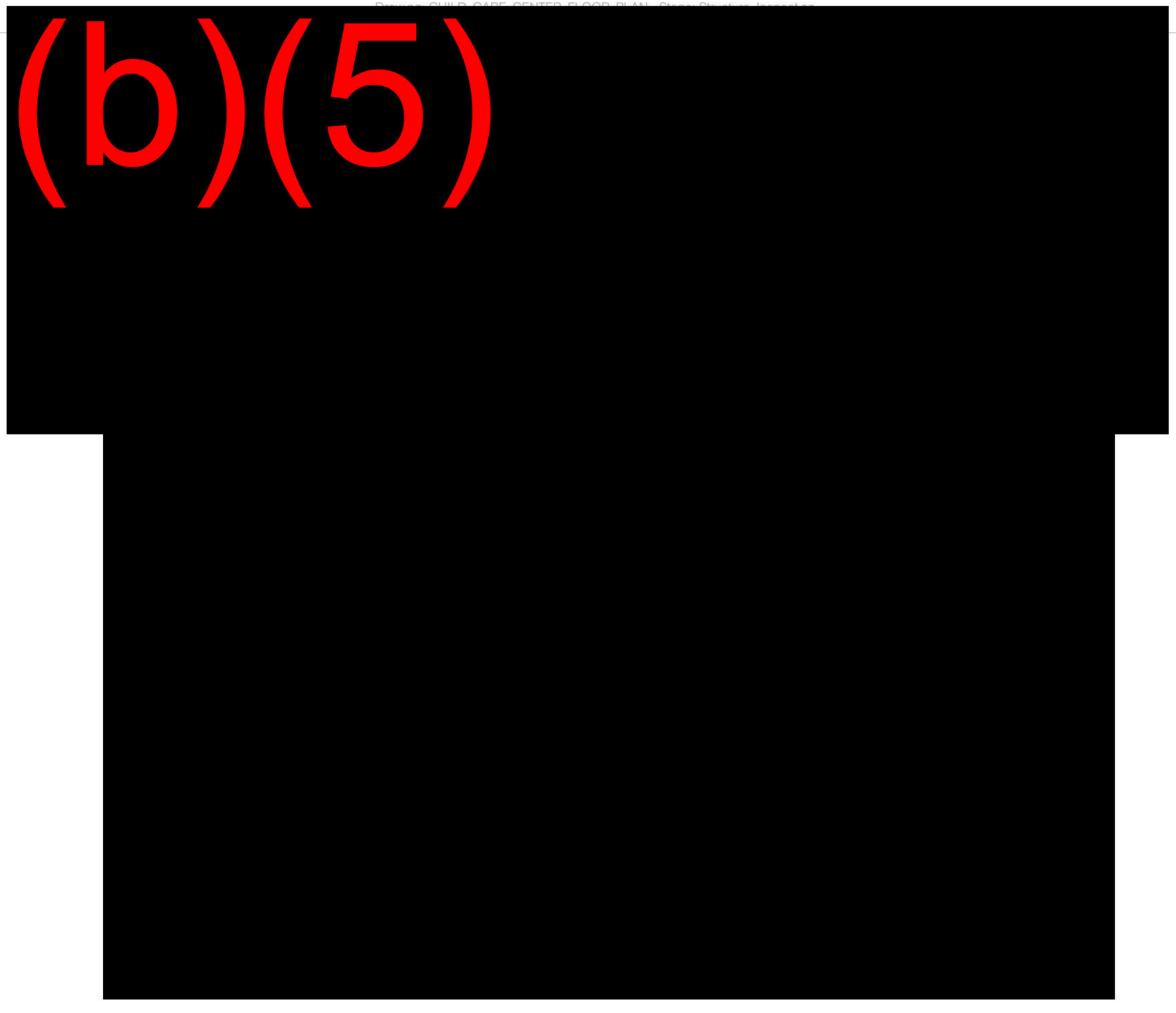
Attention shall be given to correct installation of non-structural components to avoid any swinging of lamps or A/C ducts, because they are hanging from steel sections. In similar way the attachment to structural walls of cabinets, furniture and tanks would be done to avoid minor incidents or blockage of means of egress and ingress.

Cordially,

(b) (6)

Luis G. Daza Duarte Ph.D., MECE, PE

DAZA Structural Engineering Services PSC



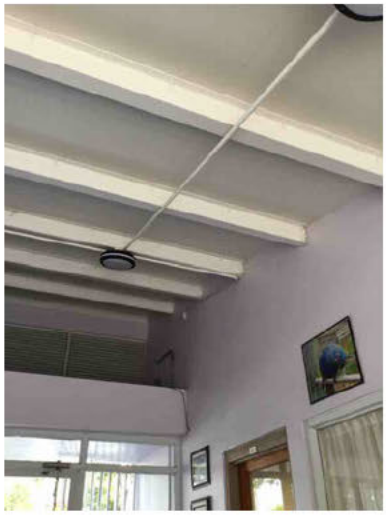
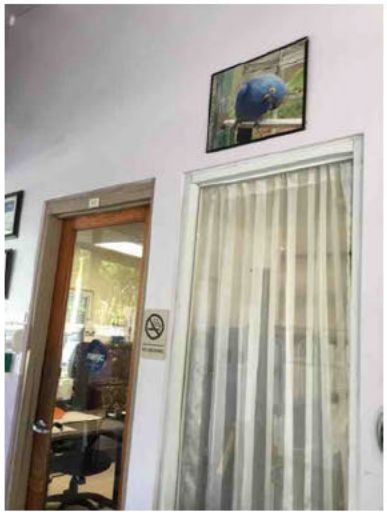
FLOOR PLAN
NOT TO SCALE

Shell

1 1/13/20

(b)(5) [redacted]



2 1/13/20

(b)(5) [redacted]

3 1/13/20

(b)(5)).

4 1/13/20

(b)(5)

5 1/13/20

(b)(5) e.

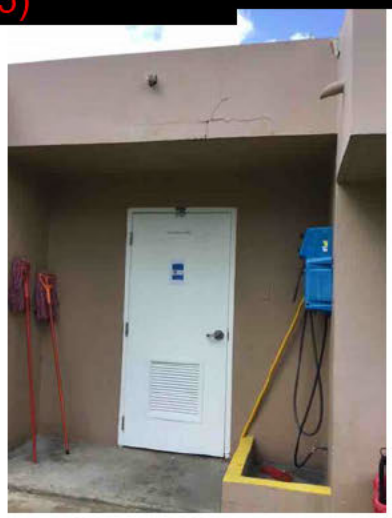
6 1/13/20

cab net anchored to structura wa .

(b)(5)

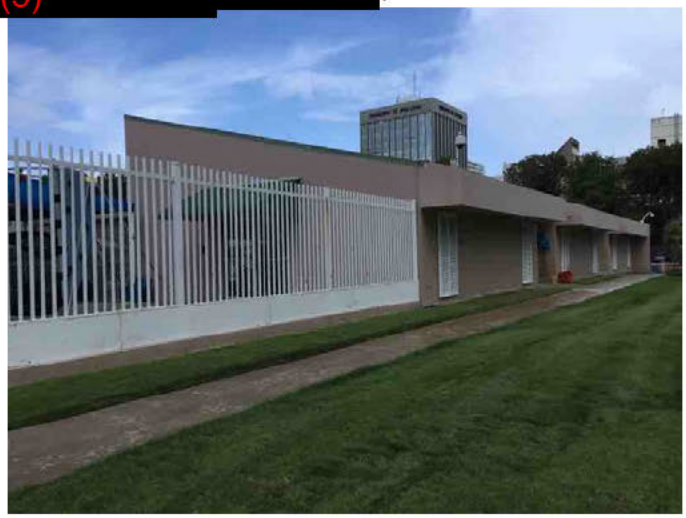
7 1/13/20

(b)(5)



1/13/20

(b)(5) .



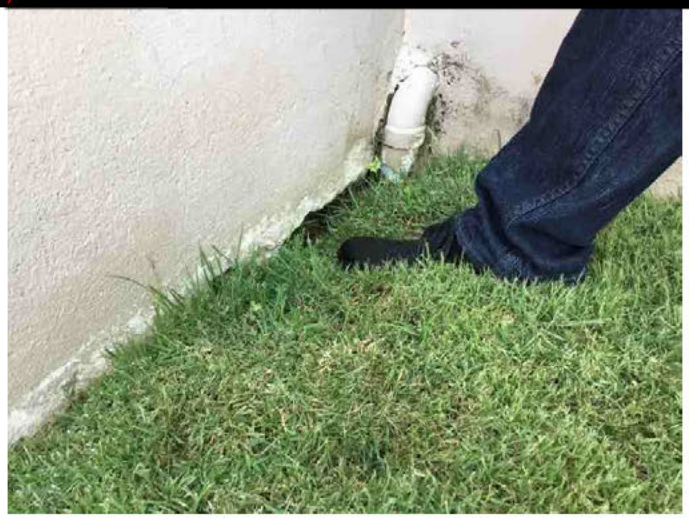
9 1/13/20

(b)(5)

(b)(5)

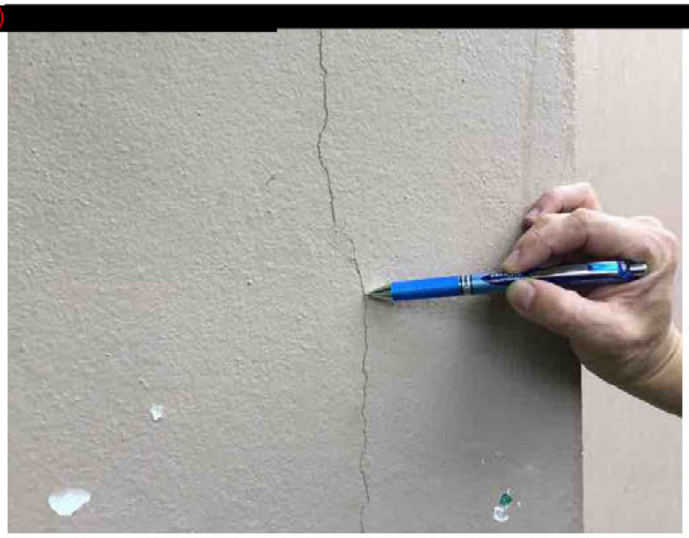
11 1/13/20

(b)(5)



12 1/13/20

(b)(5)



13 1/13/20

(b)(5)

14 1/13/20

(b)(5)

15 1/13/20

(b)(5) [redacted]

16 1/13/20

West facade.

17 1/13/20

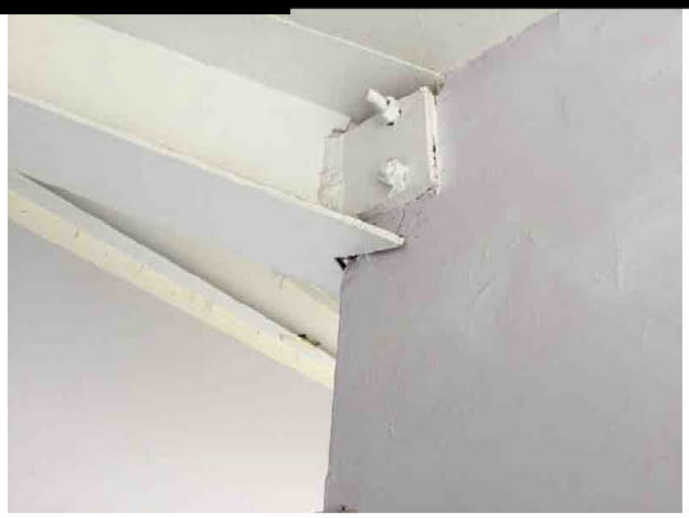
(b)(5) [redacted]

18 1/13/20

(b)(5)

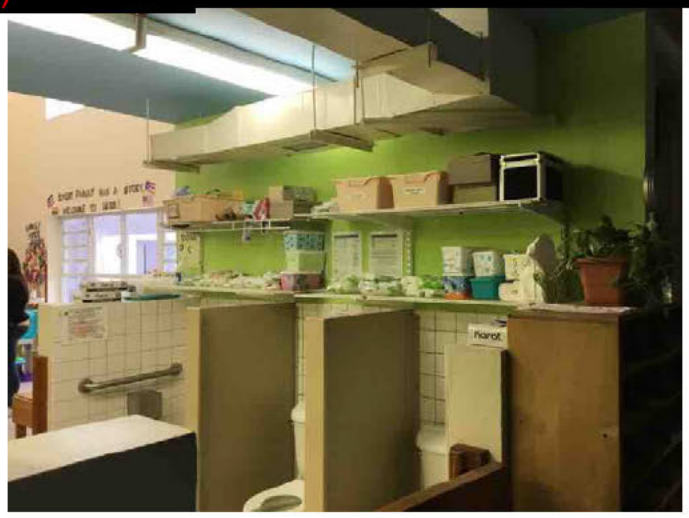
1/13/20

(b)(5)



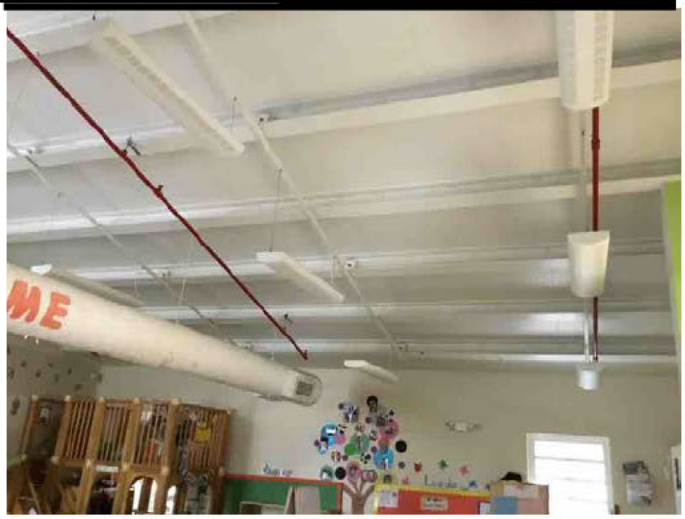
20 1/13/20

(b)(5)



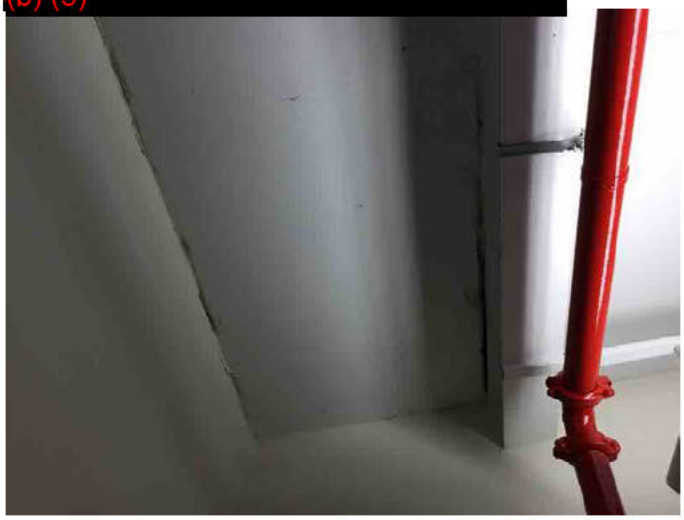
21 1/13/20

(b)(5) [redacted]



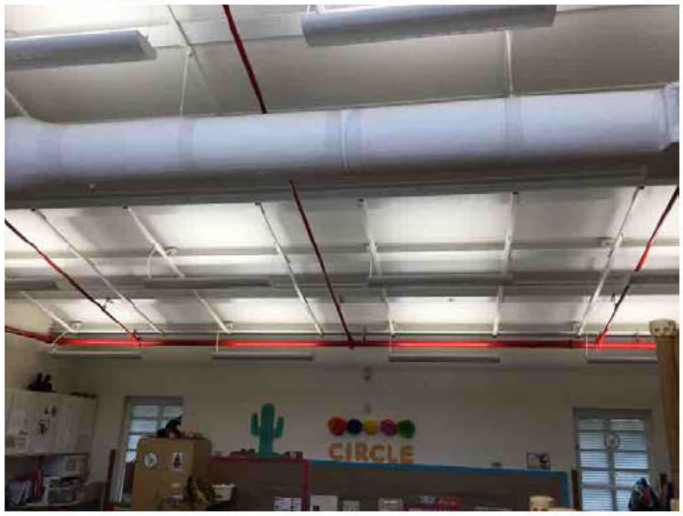
22 1/13/20

(b) (5)



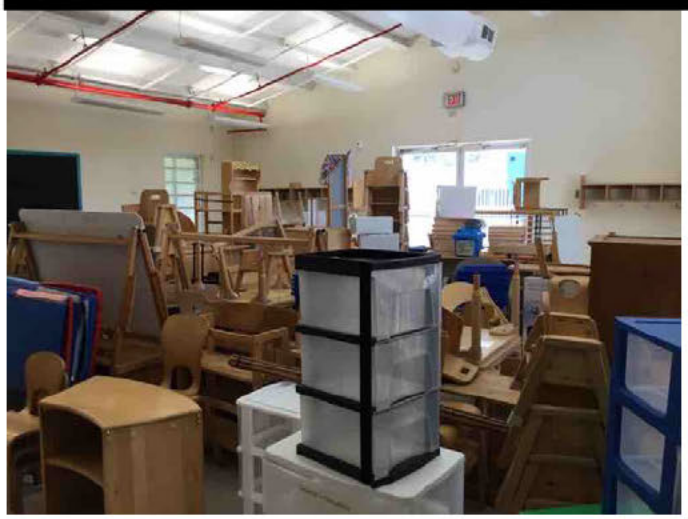
23 1/13/20

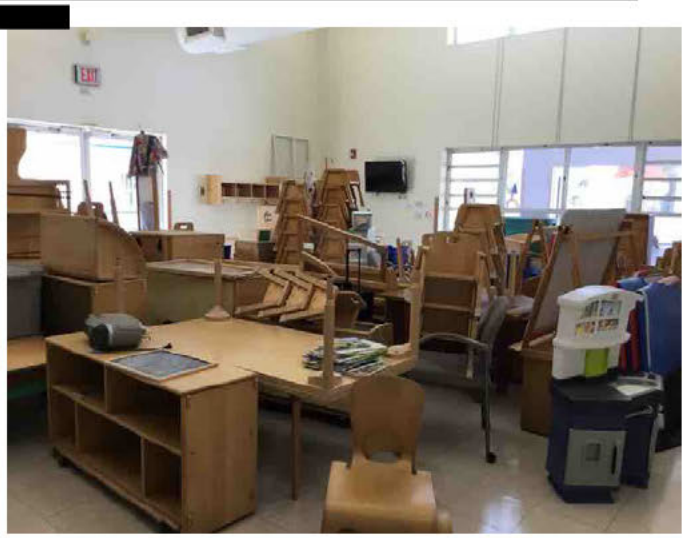
(b)(5)



24 1/13/20

(b)(5) [redacted]





25 1/13/20

(b)(5) [redacted]

26 1/13/20

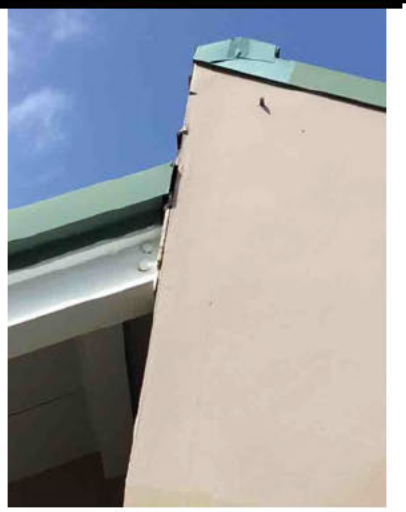
(b)(5)

1/13/20

(b)(5)

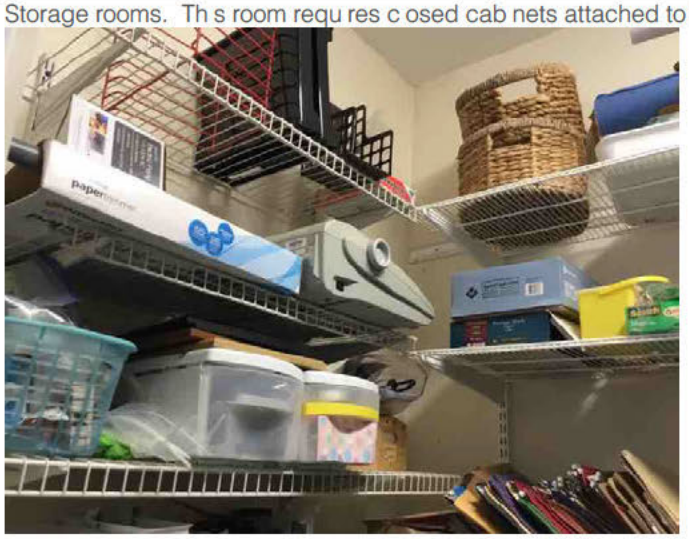
28 1/13/20

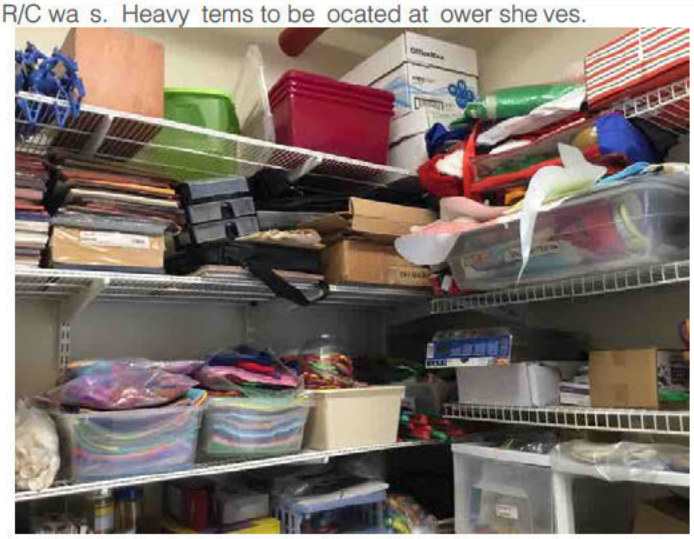
(b)(5) [redacted].



29 1/13/20

Storage rooms. Th s room requ res c osed cab nets attached to R/C wa s. Heavy tems to be ocated at ower she ves.



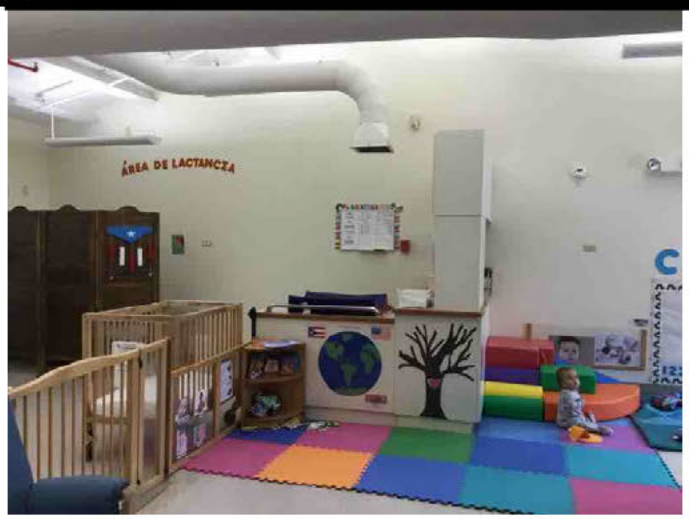


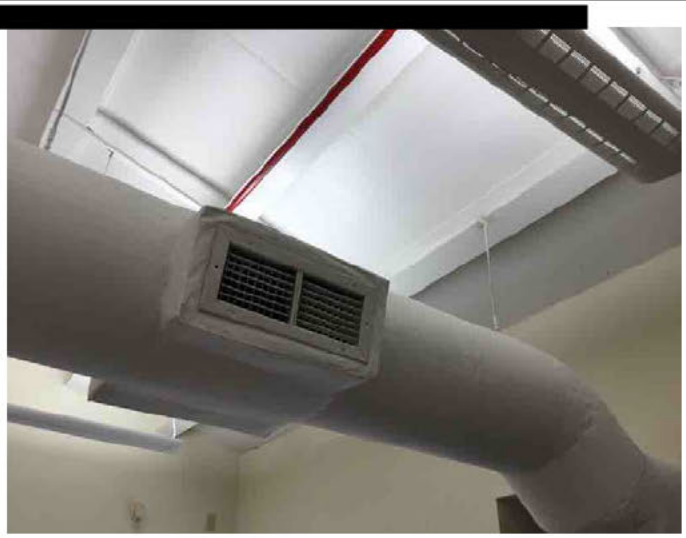
30 1/13/20

(b) (5) [redacted]

31 1/13/20

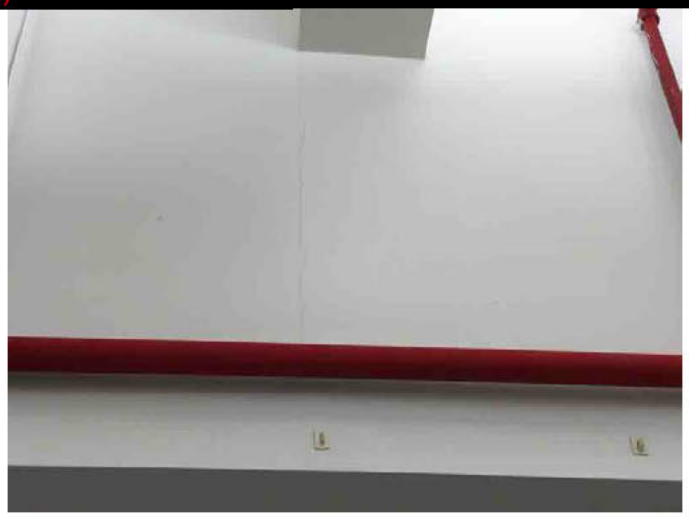
(b)(5) [redacted]





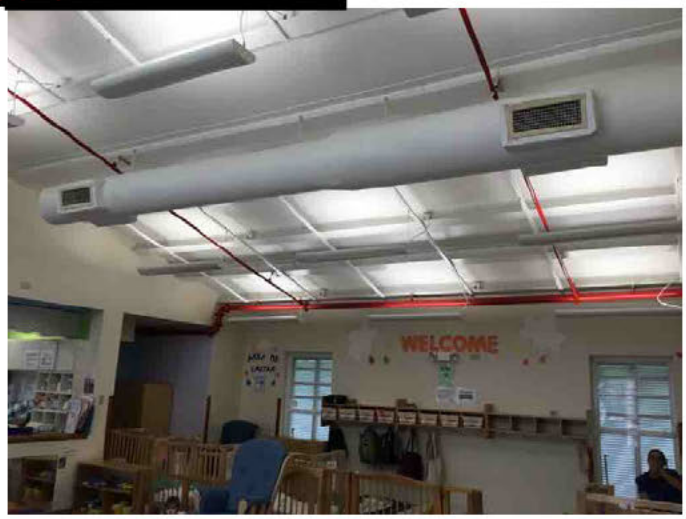
32 1/13/20

(b)(5) [redacted]



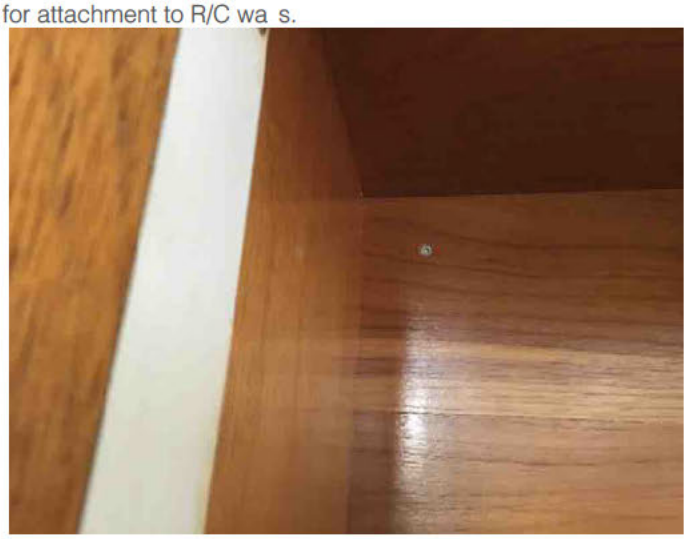
33 1/13/20

(b)(5)



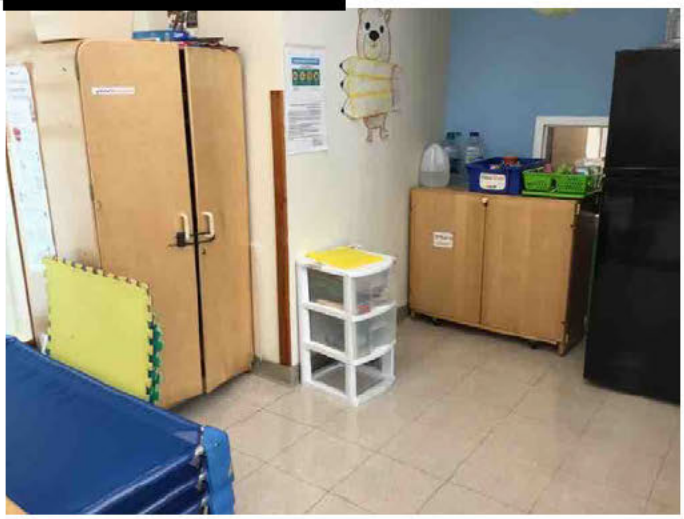
34 1/13/20

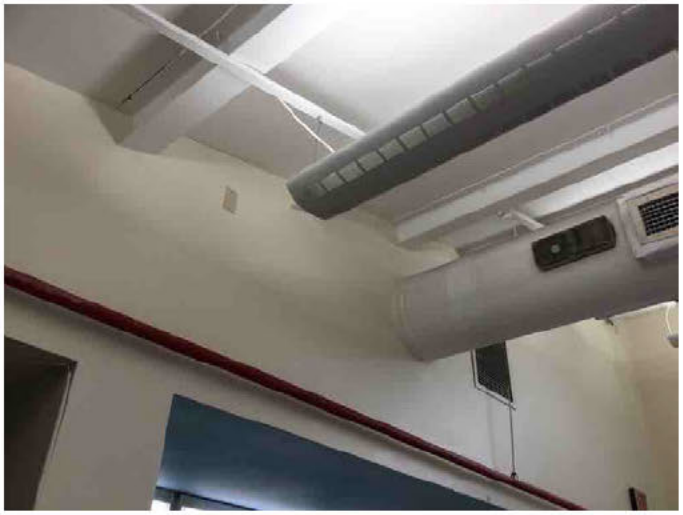
C assroom. The wooden cab net requ res add t ona screw bo ts for attachment to R/C wa s.

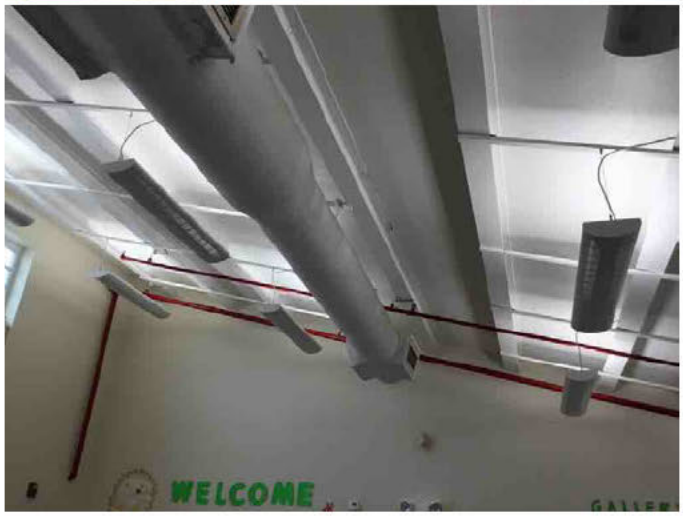


35 1/13/20

(b)(5) [redacted]







36 1/13/20

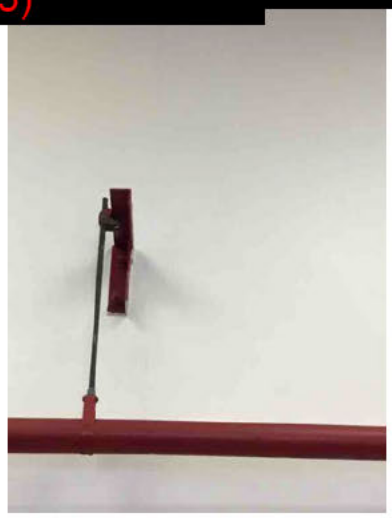
(b)(5) [redacted]

37 1/13/20

(b)(5) [redacted]

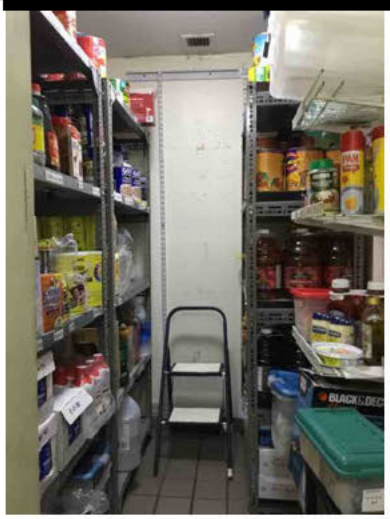
38 1/13/20

(b)(5) [redacted]



39 1/13/20

(b)(5) [redacted]



40 1/13/20

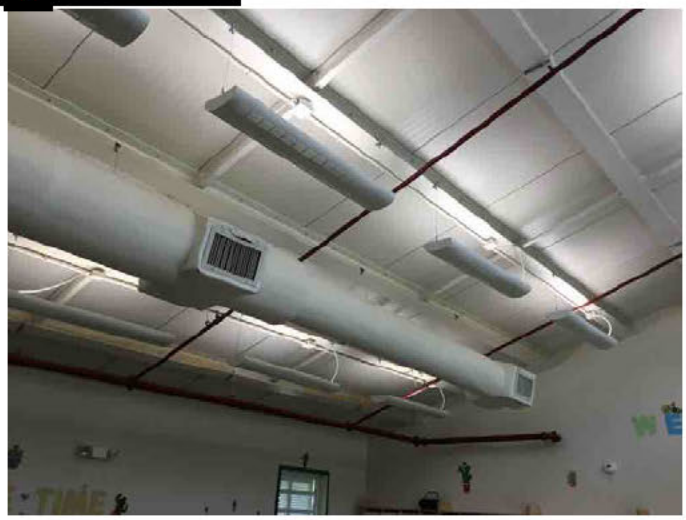
(b)(5) [redacted]

41 1/13/20

(b)(5)

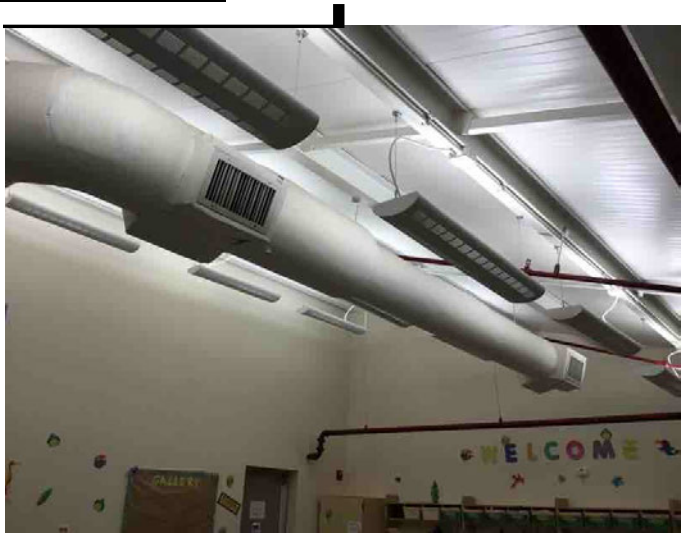
42 1/13/20

(b)(5)



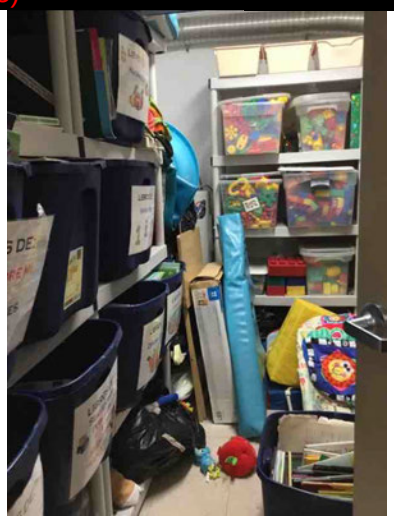
43 1/13/20

(b)(5) [redacted]



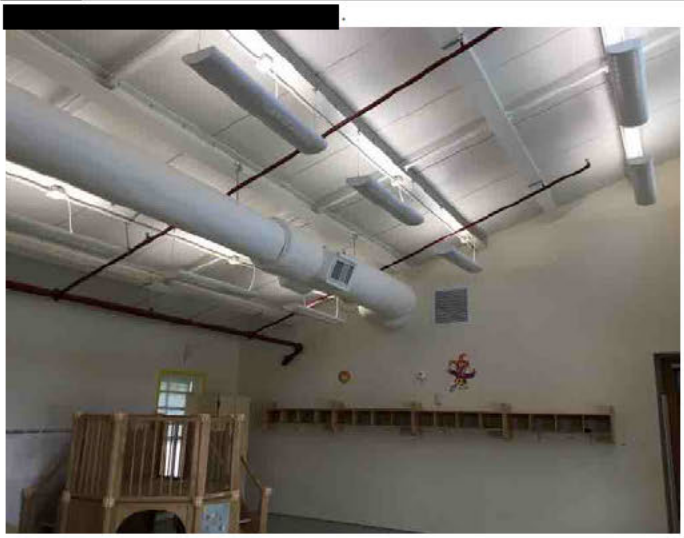
44 1/13/20

(b)(5) [redacted]



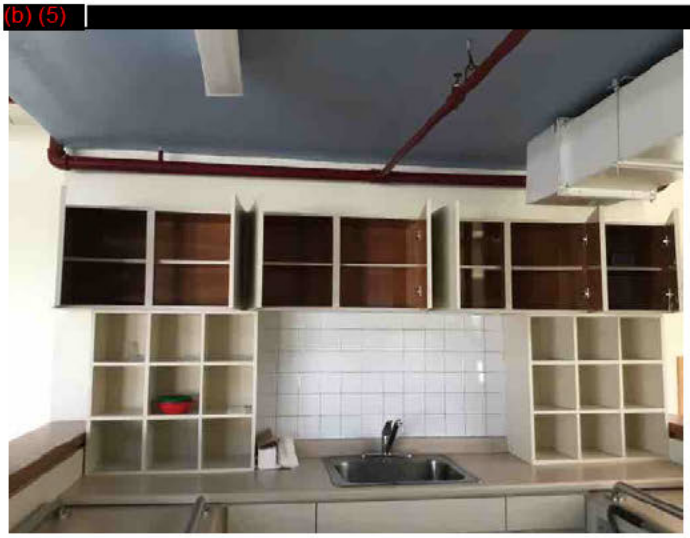
45 1/13/20

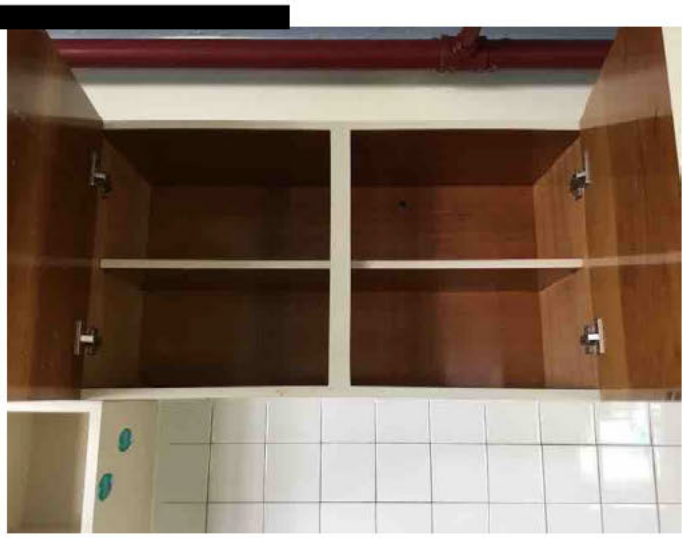
(b) (5) [redacted]



46 1/13/20

(b) (5) [redacted]





47 1/13/20

(b) (5) [redacted]

48 1/13/20

(b) (5) [redacted]